

Title (en)

Method for acoustically monitoring a wind turbine, acoustic monitoring system for a wind turbine and re-equipment kit

Title (de)

Verfahren zur akustischen Überwachung einer Windturbine, akustisches Überwachungssystem für eine Windturbine und Kit zur Neu-ausrüstung

Title (fr)

Procédé pour surveiller acoustiquement une éolienne, système de surveillance acoustique pour éolienne et kit de ré-équipement

Publication

**EP 2535579 A1 20121219 (EN)**

Application

**EP 11169777 A 20110614**

Priority

EP 11169777 A 20110614

Abstract (en)

The invention concerns a method for acoustically monitoring a wind turbine (1), in particular for monitoring the existence of loose objects inside the wind turbine (1). Thereby a sound generated in a rotating part (3) of the wind turbine (1) is monitored during operation of the wind turbine (1) which sound is analyzed with respect to specific parameter values (A) of the sound within at least one specific frequency range (F sel ) and if such specific parameter values (A) are detected, a signal (Sig) for possible further actions is generated. The invention also concerns an acoustic monitoring system (33) for a wind turbine (1) and a re-equipment kit (37).

IPC 8 full level

**F03D 11/00** (2006.01)

CPC (source: EP US)

**F03D 7/0296** (2013.01 - US); **F03D 17/00** (2016.05 - EP US); **F05B 2260/80** (2013.01 - US); **F05B 2260/83** (2013.01 - EP US); **F05B 2270/333** (2013.01 - EP US); **Y02E 10/72** (2013.01 - EP US)

Citation (applicant)

US 6785637 B1 20040831 - WOB BEN ALOYS [DE]

Citation (search report)

- [XD] US 6785637 B1 20040831 - WOB BEN ALOYS [DE]
- [X] WO 2010040832 A1 20100415 - ENERIA [FR], et al
- [XI] EP 2026160 A1 20090218 - GEN ELECTRIC [US]
- [X] JP 2010281279 A 20101216 - SHIMIZU CONSTRUCTION CO LTD

Citation (third parties)

Third party :

- WO 0125631 A1 20010412 - WOB BEN ALOYS [DE]
- WO 02079646 A1 20021010 - WOB BEN ALOYS [DE]

Cited by

EP3051126A4; US11313355B2; WO2019129328A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2535579 A1 20121219**; **EP 2535579 B1 20200122**; CN 102828919 A 20121219; CN 102828919 B 20170301; DK 2535579 T3 20200414; ES 2780173 T3 20200824; US 2012321464 A1 20121220; US 9206786 B2 20151208

DOCDB simple family (application)

**EP 11169777 A 20110614**; CN 201210195950 A 20120614; DK 11169777 T 20110614; ES 11169777 T 20110614; US 201213517803 A 20120614